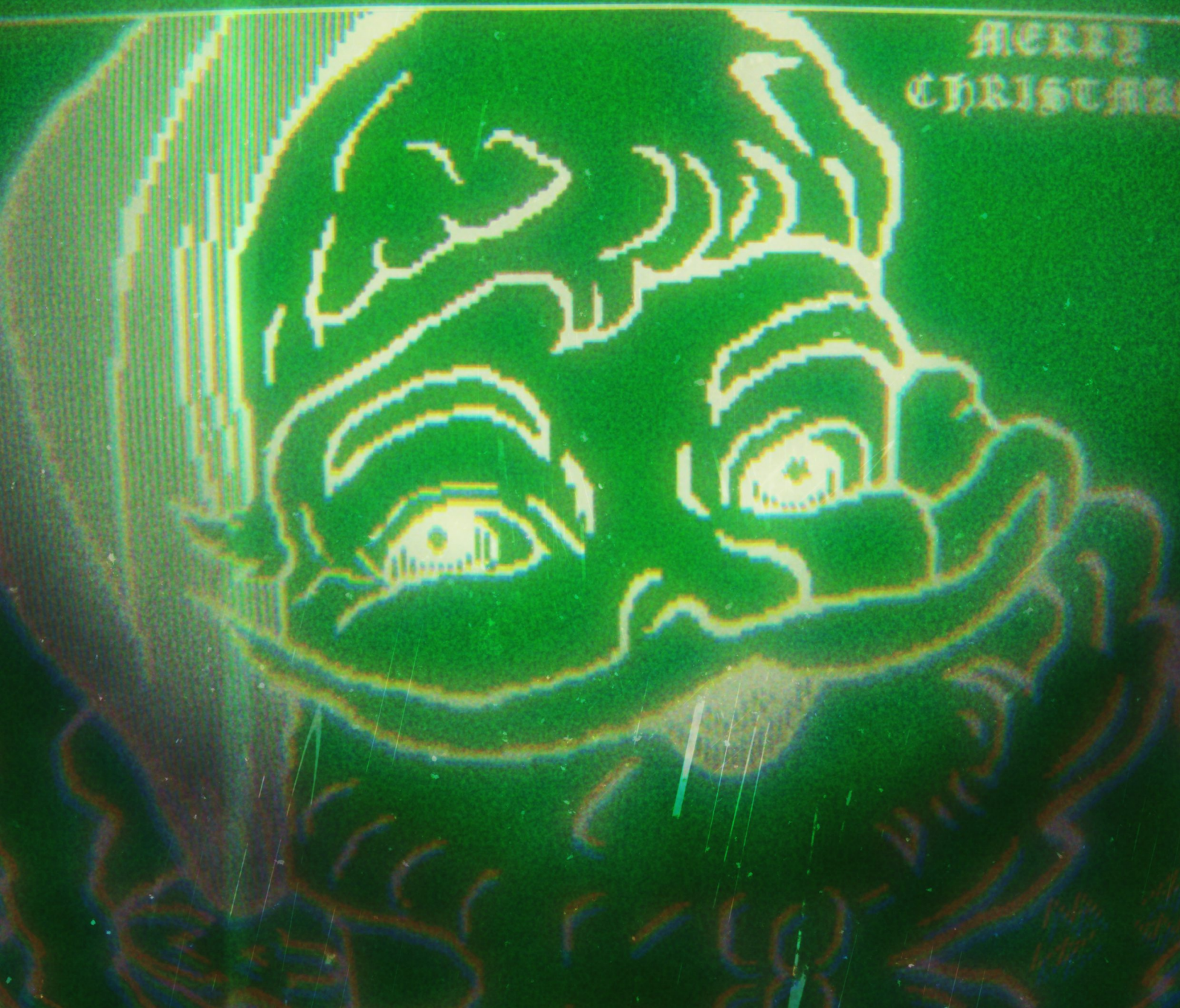
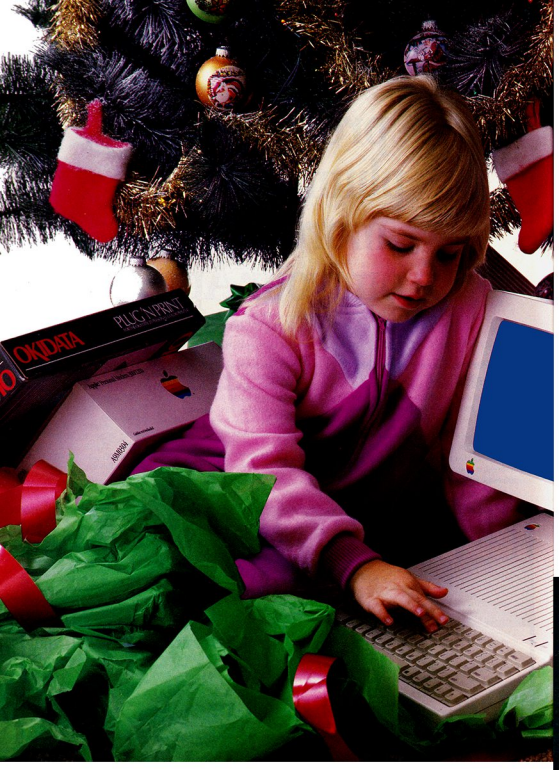
1984

Apple IIC | Macintosh | PC Jr.
Robots | Gizmos | Games



It's Christmas and Apples are in Season.

Macintosh

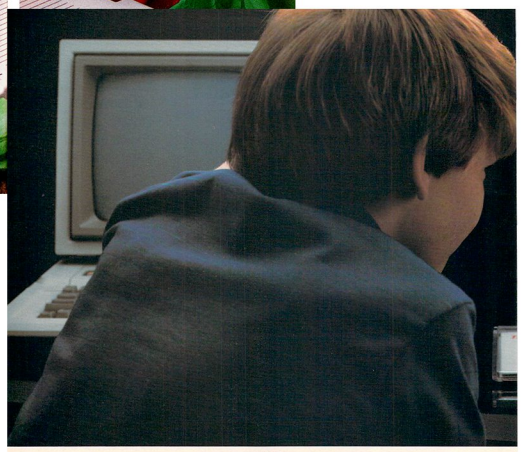


HOLIDAY GIFT GUIDE

Before you journey into the recesses of your local shopping mall this season, thumb through our helpful guide. From whimsical stocking stuffers to practical peripherals, we know you'll find something for every Apple fan on your list.

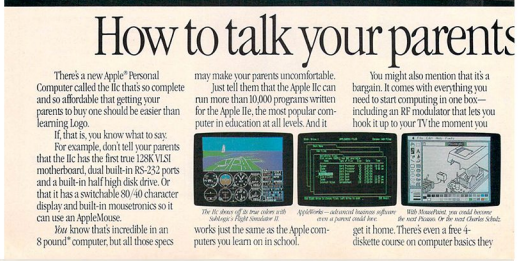
The Apple II family, whose form-factor had been largely unchanged since its introduct-ion in 1977, added a new member in 1984. The Apple IIc (compact) shrank the size of the Apple II dramatically, adding a built-in floppy drive and including major peripheral devices (such as a serial port) on the main logic board, in order to eliminate the need for expansion slots.

A direct response to new competitors such as the PCjr, the Apple IIc was not as successful as IBM's new offering in the short term, but arguably had greater longevity, still having many fans today.



Its "standard" display was a 9-inch monochrome CRT; Apple would release a colour version, and a mono LCD panel that made the IIc more "portable" (although still requiring an external power source.)

The Apple IIc was the first machine released employing Harmut Esslinger's "Snow White" design language, which would be used in successive Apple models such as the Apple IIGS and the Macintosh SE.



The Macintosh, however, was the true Apple star of 1984. The brainchild of Jef Raskin and Steve Jobs, the Macintosh was the first attempt at a true "appliance" computer -- one that a user required no foreknowledge to use -- and it was largely successful at it, providing a completely mouse-based operating system and (eventually) a suite of applications that covered practically every home, school and office computing task.

Where the Macintosh would really shine would be in the desktop publishing arena, where its WYSIWYG (what you see is what you get) interface would endear it to graphic designers, who had struggled with pen-and-ink drawing and cut-and-paste layup for all of publishing's preceding history. This market would keep the Macintosh alive during the "dark days" of the mid-1990s, when Windows ruled.

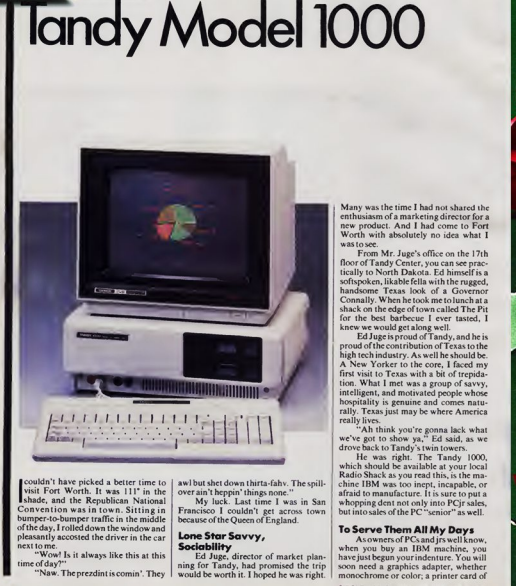
IBM's first attempt to enter the home computer market, the PCjr (PC junior) was released in early 1984 sporting improved graphics modes and three-voice sound that made it more competitive with other home computers of the day, such as the Commodore 64. However, at over $1200US without monitor, it was substantially more expensive than other computers available on the market, and it struggled, selling just 500,000 before being discontinued in 1985.

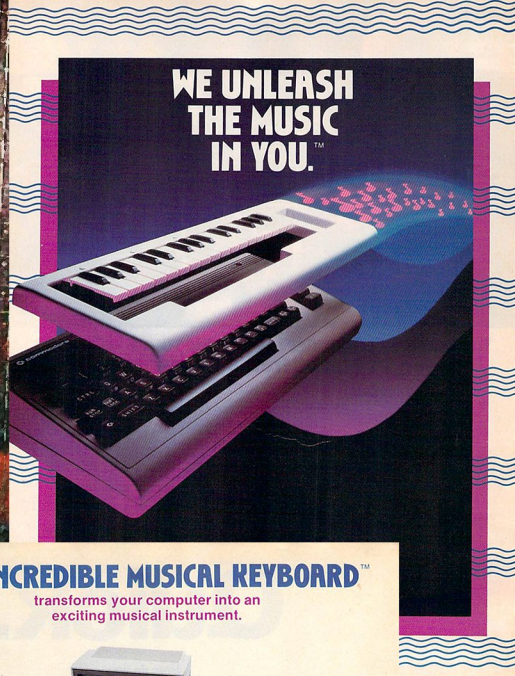
Previously in the low-end hi-fi and TV business, Amstrad entered the UK home computer market with its CPC 464. The CPC came with its own monitor, which also served as the power supply for the computer. It had a 4mhz Z80 CPU and 64K of RAM, 27 colours and 3-voice sound. Amstrad would sell 2 million CPC 464's, and followed it up with models that had disk drives and 128K of RAM.

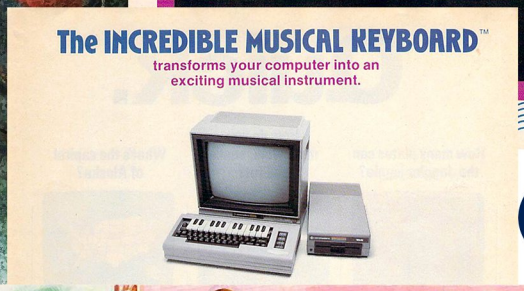
These later models supported the CP/M operating system, making them attractive to business users.

The CPC line was discontinued in 1990.

Tandy would release an IBM compatible PC of its own. The Model 1000, like the PCjr, had 16-colour graphics and 3-voice sound, but also had a "real" keyboard and two floppy drive bays. Games that supported "Tandy graphics" (called that despite the graphics mode's introduction with the PCjr) became fairly common, until widespread adoption of VGA.



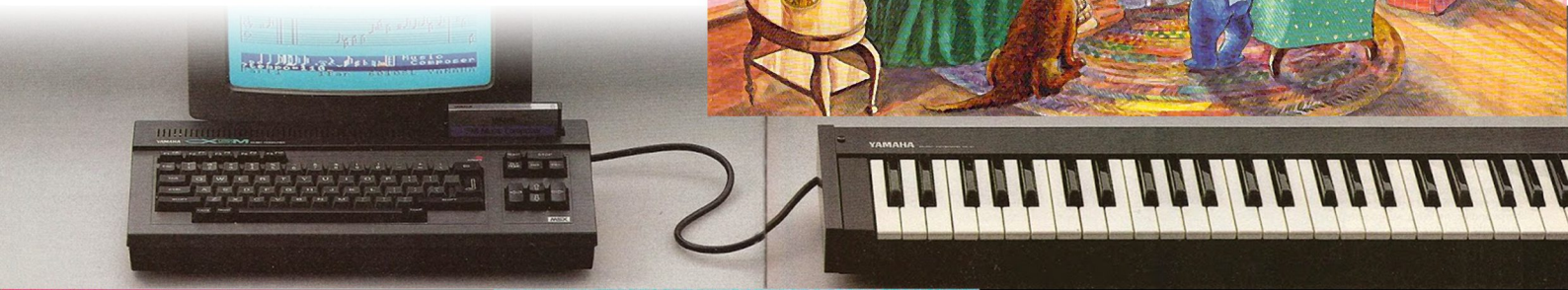




The keyboard overlay pictured above allowed a Commodore 64 owner (with the appropriate software) to "play" a two-octave keyboard, sound courtesy of the 64s on-board SID music synthesizer.

These are still used by chiptune musicians today, particularly in live performances, and can be hard to find.

Other options for modern retro-musicians include cartridges that provide MIDI support.



REVIEW

YAMAHA CX-5M

Is it a computer or is it a synthesiser? Yamaha's CX-5M is an MSX micro with two keyboards. Tony Sacks ran his fingers over both.

1984 HAS BROUGHT the very different worlds of the micro buff and the musician considerably closer. On the micro front, there has been a noticeable increase in the amount and quality of software and hardware designed to make the most of computers' built-in sound making facilities. This is particularly true of micros like the BBC and the Commodore 64 with their relatively sophisticated music chips.

Meanwhile, musicians are beginning to exploit the tremendous possibilities offered by Midi — the Musical Instrument Digital Interface. As described previously — *Your Computer*, September 1984 — Midi is a digital Esperanto which allows various electronic instruments such as synthesisers, sequencers and drum simulators to send digital messages to each other. With suitable interfaces these instruments can also be connected to computers.

Yamaha's CX-5M merges these two worlds in one £449 machine. Superficially it looks like any of the rapidly-growing army of MSX clones. The only sign that it is something special, is the inscription "music computer" next to the model name.

A tour around the crowded perimeter of the computer begins to reveal its dual personality. In addition to the standard MSX sockets for joysticks, Centronics printer and TV and monitor outputs, there is a pair of DIN sockets marked Midi In and Out, two additional stereo sound outputs and a Music Keyboard socket. In all, the machine has more than 180 electrical contacts waiting to communicate with the outside world.

The CX-5M has a professional look and feel emphasised by a sober grey and black colour scheme. The keyboard is pleasant to use, despite a slight wobble on the space-bar. The only oddity is the inclusion of a blank "dead" key used to add various accents to vowels for foreign languages. There is no £ key although the sterling symbol can be accessed from the vast MSX character set using the Code and Shift keys.

Two switches — one on the computer, the other on the substantial power supply — are needed to turn the CX-5M on. If the Rom cartridge slot is unoccupied the machine tells you that it has 28,815 bytes available from its 32K of RAM. In this mode the computer does everything that you would expect of an MSX machine.

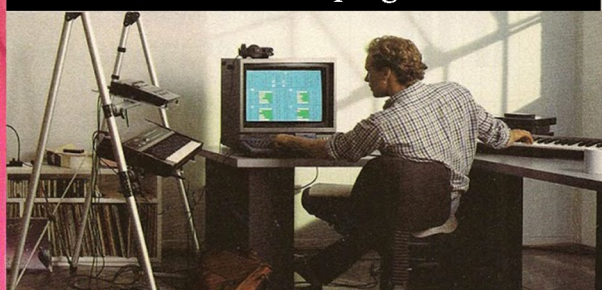
However, type in the command of Call Music and you enter a different world. You now have access to the computer's unique feature — a built-in FM sound synthesiser.

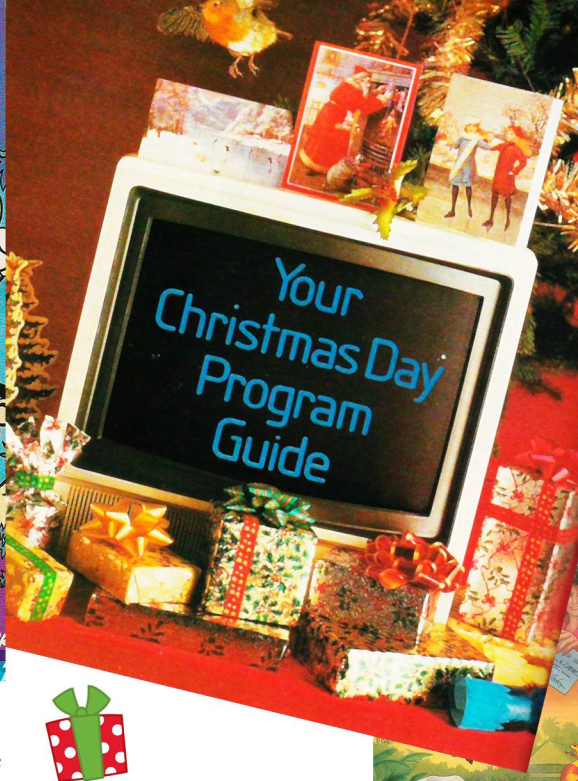
Two music keyboards are available to plug into the socket mentioned above: a miniature 44-note device costing £85; and a full-size 49-note keyboard costing £165. In the MSX Basic mode, these keyboards are lifeless, but once you enter the synthesiser mode, you can

This MSX (an open hardware architecure used by Japanese manfacturers and popular in Asia and South America)-based computer featured a built-in stereo FM synthesizer with a number of pre-defined instruments, MIDI support and an external musical keyboard.

Cartridges provided musical sequencing software and additional instruments.

The CX-5M could also program the DX7.



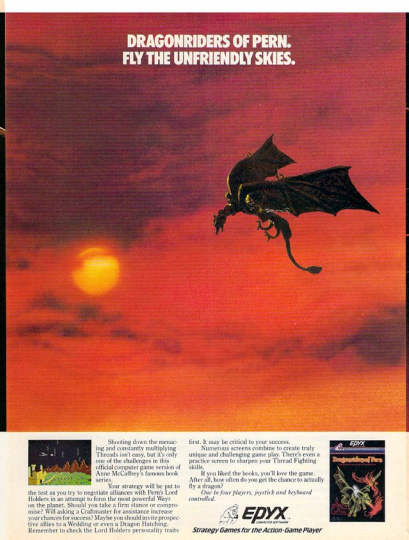


MAD Magazine's popular Spy vs. Spy comic series came to life in video-game form, allowing two players to battle simultaneously in their attempts to solve the puzzle and escape the game. Or you could just keep killing each other until the time ran out. But Spy vs. Spy wasn't the only cartoon to get the video-game treatment... "Calling Danger Mouse...!"

The Hulk would also get a turn in a graphical text-adventure designed by Scott Adams. Unfortunately the cool-for-the-time graphics appear to have eaten up the space a storyline could have used, and it's not the most engaging game. But the advertisement was awesome!

Ranked by the readers of magazine Zzap!64 as the best Commodore 64 game in 1985, Impossible Mission was almost universally applauded. Taking on the role of a secret agent sent in to stop an evil genius, you need to recover pieces of a password by searching rooms infested with killer robots.

The Commodore 64 version had digital speech, including a lifelike scream when the protagonist falls to his death.

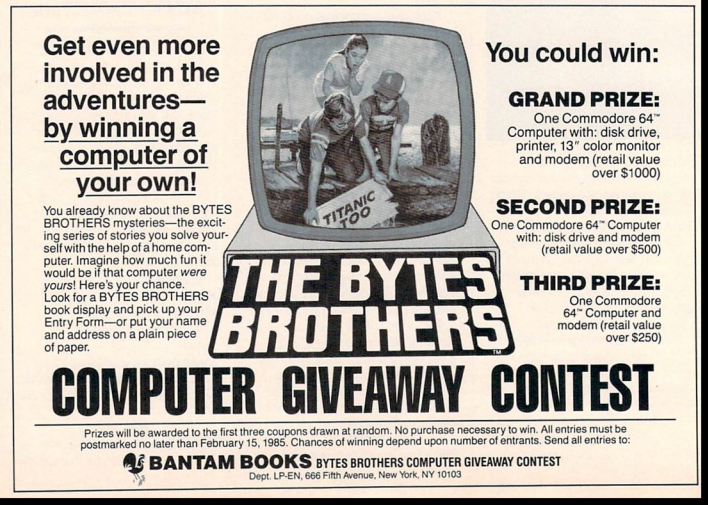


Buoyed by Jumpman's overwhelming success, Epyx would release a number of games over 1984, including a head-to-head sequel to Pitstop, and a game centered around the 1980s "breakdancing" fad.

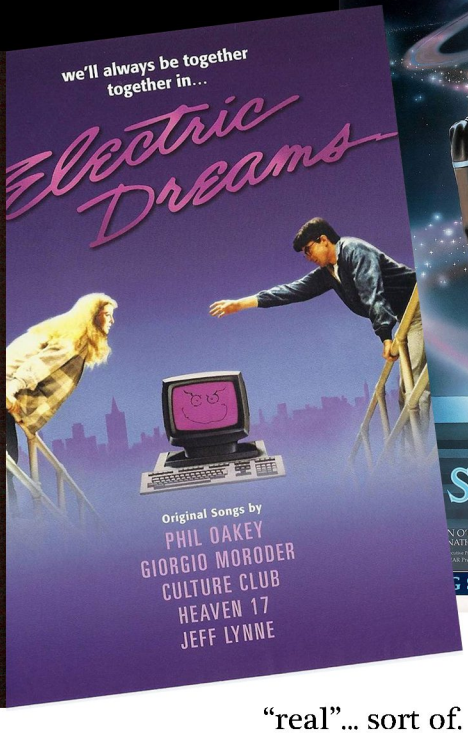
Dallas...Quest? This graphical text adventure had you playing a detective tasked with travelling to South America to recover a map of an oilfield Jock Ewing discovered before he died.

J.R., of course, tries to stop you...

The Fall Guy and The Dukes of Hazzard also got games, but unlike the positive reviews Dallas Quest received, their reception was mixed and the games were deemed mediocre.



The Bytes Brothers books were a series of Hardy Boys-esque mysteries that were solved (by the reader and the protagonists simultaneously) with BASIC computer programs. Typically, solutions involved working out math or word problems, or more complex situations, like decoding morse code.

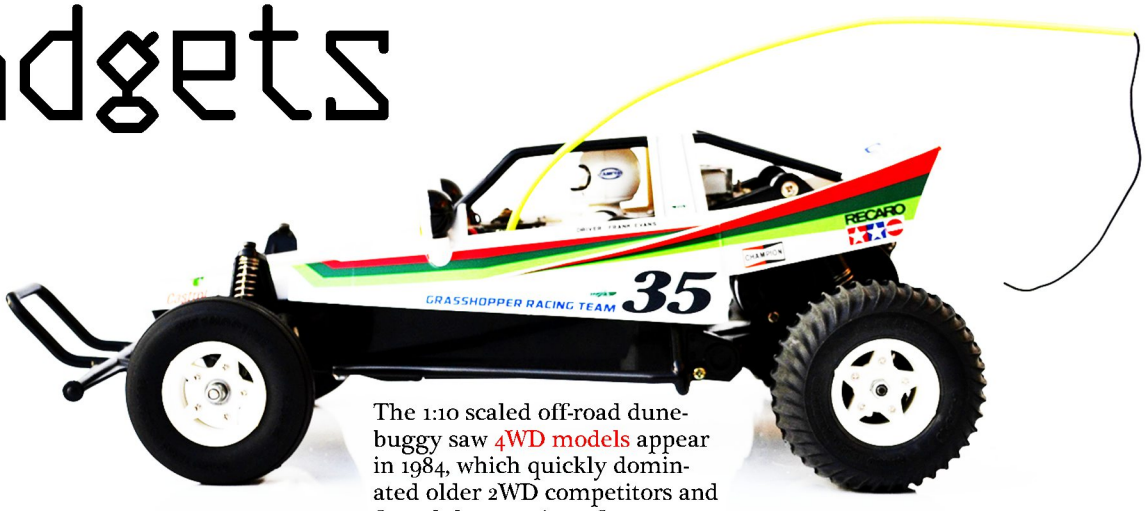


With a digitally-sampled shout of "Ghostbusters" that sounds suspiciously like the voice from Sirius Software's Plasmania, and a full chiptune rendition of the Ghostbusters theme, many people never actually played the game, but only ever booted the disk for its introduction.

The game itself had its lovers and its haters.

The Last Starfighter made video games "real"... sort of. The film's protagonist is recruited by the alien race who created the titular video game, and it's off to space-faring adventure. Electric Dreams, meanwhile, is a fun romance involving an intelligent computer -- but its pacing isn't the best and it suffered from poor reviews.

gadgets



The 1:10 scaled off-road dune-buggy saw 4WD models appear in 1984, which quickly dominated older 2WD competitors and forced the creation of separate racing categories.

The Motorola DynaTAC hit the market in 1984, but at $3,995 (over $9200 2017 dollars) it was by no means mainstream. (Also, there weren't very many mobile phone towers in 1984!)

It took ten hours to charge and gave you thirty minutes talk time, and weighed as much as a clay-fired brick, but your other choices for on-the-go communications were limited to car phones or pay-phones...

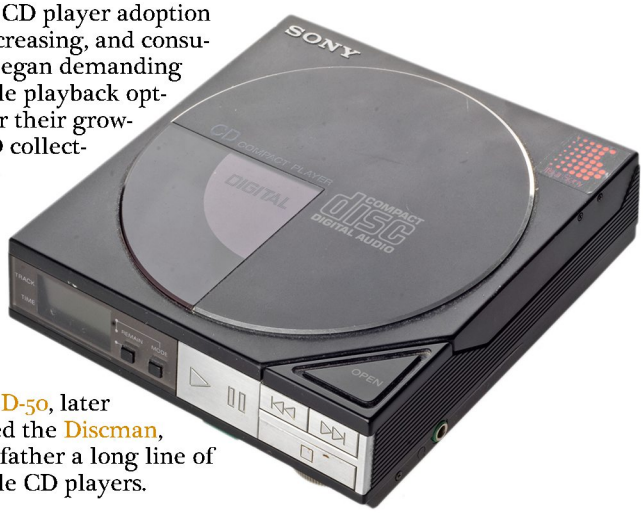
...so it was still pretty cool.

One of the first PDAs, the Casio Databank watch allowed you to store contact information as well as perform calculator functions.

A variety of toy robots began to appear in the mid-1980s. The Tomy Omnibot allowed users to record series of commands to a cassette tape, which could then be played back. It also had a built-in timer that could trigger playback at specified times.

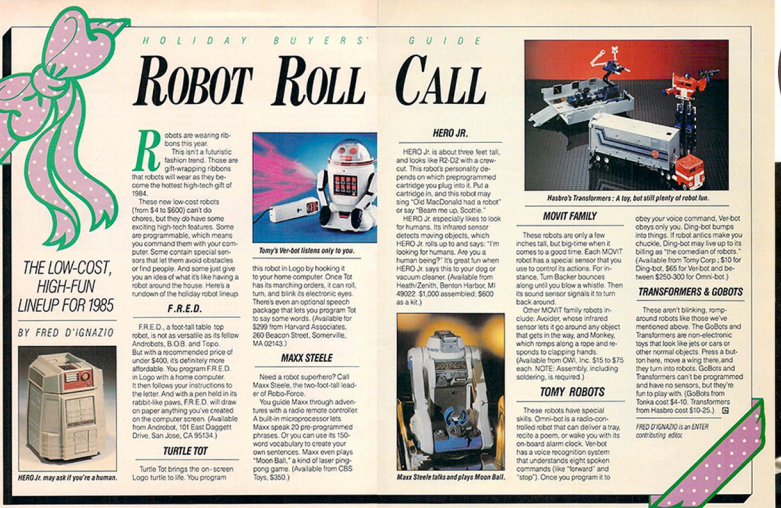
Another robot, F.R.E.D., could be programmed using LOGO on a home computer. It could also hold a pen and draw as it moved, replicating what was on your LOGO screen.

Home CD player adoption was increasing, and consumers began demanding portable playback options for their growing CD collections.



Sony's D-50, later branded the Discman, would father a long line of portable CD players.

Inexpensive colour printing gave over-achieving students yet another way to surprise their teachers.



HOLIDAY BUYERS' GUIDE

ROBOT ROLL CALL

THE LOW-COST, HIGH-FUN LINEUP FOR 1985

BY FRED D'IGNAZIO

Robots are wearing ribbons this year. This isn't a futuristic fashion trend. Those are gift-wrapping ribbons that robots will wear as they become the hottest high-tech gift of 1984.

These new low-cost robots (from $4 to $600) can't do chores, but they do have some exciting high-tech features. Some are programmable, which means you command them with your computer. Some contain special sensors that let them avoid obstacles or find people. And some just give you an idea of what it's like having a robot around the house. Here's a rundown of the holiday robot lineup.

F.R.E.D.

F.R.E.D., a foot-tall table top robot, is not as versatile as its fellow Androbots, B.O.B. and Topo. But with a recommended price of under $400, it's definitely more affordable. You program F.R.E.D. in Logo with a home computer. It then follows your instructions to the letter. And with a pen held in its rabbit-like paws, F.R.E.D. will draw on paper anything you've created on the computer screen. (Available from Androbot, 101 East Daggett Drive, San Jose, CA 95134.)

TURTLE TOT

Turtle Tot brings the on-screen Logo turtle to life. You program this robot in Logo by hooking it to your home computer. Once Tot has its marching orders, it can roll, turn, and blink its electronic eyes. There's even an optional speech package that lets you program Tot to say some words. (Available for $299 from Harvard Associates, 260 Beacon Street, Somerville, MA 02143.)

HERO Jr. may ask if you're a human.

Tomy's Ver-bot listens only to you.

MAXX STEELE

Need a robot superhero? Call Maxx Steele, the two-foot-tall leader of Robo-Force.

You guide Maxx through adventures with a radio remote controller. A built-in microprocessor lets Maxx speak 20 pre-programmed phrases. Or you can use its 150-word vocabulary to create your own sentences. Maxx even plays "Moon Ball," a kind of laser ping-pong game. (Available from CBS Toys, $350.)

Maxx Steele talks and plays Moon Ball.

HERO JR.

HERO Jr. is about three feet tall, and looks like R2-D2 with a crew-cut. This robot's personality depends on which preprogrammed cartridge you plug into it. Put a cartridge in, and this robot may sing "Old MacDonald had a robot" or say "Beam me up, Scottie."

HERO Jr. especially likes to look for humans. Its infrared sensor detects moving objects, which HERO Jr. rolls up to and says: "I'm looking for humans. Are you a human being?" It's great fun when HERO Jr. says this to your dog or vacuum cleaner. (Available from Heath/Zenith, Benton Harbor, MI 49022. $1,000 assembled; $600 as a kit.)

Hasbro's Transformers: A toy, but still plenty of robot fun.

MOVIT FAMILY

These robots are only a few inches tall, but big-time when it comes to a good time. Each MOVIT robot has a special sensor that you use to control its actions. For instance, Turn Backer bounces along until you blow a whistle. Then its sound sensor signals it to turn back around.

Other MOVIT family robots include: Avoider, whose infrared sensor lets it go around any object that gets in the way, and Monkey, which romps along a rope and responds to clapping hands. (Available from OWI, Inc. $15 to $75 each. NOTE: Assembly, including soldering, is required.)

TOMY ROBOTS

These robots have special skills. Omni-bot is a radio-controlled robot that can deliver a ray, recite a poem, or wake you with its on-board alarm clock. Ver-bot has a voice recognition system that understands eight spoken commands (like "forward" and "stop"). Once you program it to obey your voice command, Ver-bot obeys only you. Ding-bot bumps into things. If robot antics make you chuckle, Ding-bot may live up to its billing as "the comedian of robots." (Available from Tomy Corp.; $70 for Ding-bot, $65 for Ver-bot and between $250-300 for Omni-bot.)

TRANSFORMERS & GOBOTS

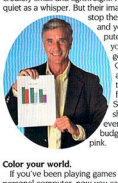
These aren't blinking, romp-around robots like those we've mentioned above. The GoBots and Transformers are non-electronic toys that look like jets or cars or other normal objects. Press a button here, move a wing there, and they turn into robots. GoBots and Transformers can't be programmed and have no sensors, but they're fun to play with. (GoBots from Tonka cost $4-10. Transformers from Hasbro cost $10-25.)

FRED D'IGNAZIO is an ENTER contributing editor.

COLOR

PERSONAL COLOR PRINTER UNDER $250.

And while your imagination is soaring, you'll be glad to know that your new printer can keep right up with it! The new OKIMATE 10 is built with the same tradition of quality and manufacturing excellence that has made Okidata the most respected name in computer printers. Okidata craftsmen specially designed and engineered the new OKIMATE 10 to be incredibly small and lightweight. And they made it quiet as a whisper. But their imagination didn't stop there. To help you and your personal computer keep within your personal budget, they made the OKIMATE 10 available at retailers everywhere for less than $250. Something that should make every personal budget tickled pink.



Color your world.

If you've been playing games on your personal computer, now you can get serious and still have fun. The new OKIMATE 10 is completely compatible with a variety of software packages that will run on your Atari and Commodore with a simple disk drive. Just load and you're off and running. Plotting charts. Designing special graphs. Creating original illustrations and pictures. Drawing special graphics. And printing them all beautifully for everyone. On most kinds of paper. In over 26 beautiful colors!

Thanks to you,

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is coming...

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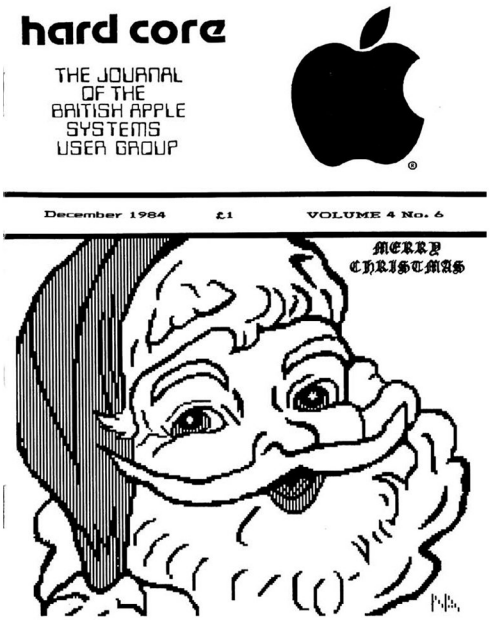

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